|  |  |
| --- | --- |
|  | | Process Definition Document |

Vajrang IT Services

This document describes the business process for reading financial data from multiple Excel files and generating summary reports for the same.

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# Introduction

## I.1 Purpose of the document

The Process Definition Document outlines the business process chosen for automation using UiPath Robotic Process Automation (RPA) technology.

The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation and how they are envisioned to work after automating it, partly or entirely. This specifications document serves as a base for developers, providing them with the details required for applying robotic process automation to the selected business process.

The purpose of this project is to create daily reports and send it to the stakeholders.

## I.2 Objectives

The business objectives and benefits expected by the Business Process Owner after automation of the selected business process are:

* To generate the summary process quicker than manual process
* To reduce the time spent by user on creating the report manually.
* To increase the accuracy in creating the report.
* Better data management.
* Reduce processing time per item by 80%
* Better Monitoring of the overall activity by using the logs provided by the robots.

## I.3 Process key contact

The specifications document includes concise and complete requirements of the business process and it is built based on the inputs provided by the **processSubject Matter Expert (SME)/ Process Owner.**

The **Process Owner** is expected **to review it and provide signoff for accuracy** and completion of the actions, context, impact and a set of process exceptions.The details are to be included in the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| ****Role**** | ****Name**** | ****Contact details (email, phone number)**** | ****Notes**** |
| Business Analyst | Ganesh Soley | [ganeshsoley@gmail.com](mailto:ganeshsoley@gmail.com) |  |
| Developer | Praveen |  |  |
| Business SME |  |  |  |
| Product Owner | Pragati Arora |  |  |

## I.4 Minimum Pre-requisites for automation

1. A filled in Process Definition Document
2. Test Data to support development
3. User access and creation of user accounts (licenses, permissions, restrictions to create accounts for robots)
4. Access to folder location where files are located.
5. Access to UiPath Orchestrator for adding QueueItems.
6. Lower environment to create Test Automation.

# As-Is process description

## II.1 Process Overview

General information about the process selected for RPA prior to automation.

|  |  |  |
| --- | --- | --- |
| # | Item | Description |
| 1 | **Process full name** | Vajrang IT Services |
| 2 | **Process Area** | Company B |
| 3 | **Department** | Accounts |
| 4 | **Process short description (operation, activity, outcome)** | This document describes the business process for reading financial data from multiple Excel files and generating summary reports for the same.  According to the Business Rules specified, data need to be filtered out and summary report is to be generated in an Excel file. |
| 5 | **Role(s) required for performing the process** | Automation Developer |
| 6 | **Process schedule and frequency** | Daily |
| 7 | **# of items processed /reference period** | 270 |
| 8 | **Process execution time** | 3 min. 11 sec. |
| 9 | **Peak period (s)** | 3-4 pm |
| 10 | **Transaction Volume During Peak period** | 1000 |
| 11 | **Total # of FTEs supporting this activity** | 17 |
| 12 | **Expected increase of volume in the next reference period** | 10% |
| 13 | **Level of exception rate** | 20-30% |
| 14 | **Input data** | Company Data Excel file |
| 15 | **Output data** | Excel file to be saved as QN2\_Final\_<Today’s\_Date>.xlsx |

\*Add more rows to the table to include relevant data for the automation process. No fields should be left empty. Use “n/a” for the items that don`t apply to the selected business process.

## II.2. Applications used in the process­

The table includes a comprehensive list of all the applications that are used as part of the process to be automated to perform the given actions in the flow.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Application name & version | SystemLanguage | Thin/Thick Client | Environment/ Access method | Comments |
|  | MS Excel | English | Thick |  |  |
|  | Google Chrome | English | Thick |  |  |
|  | Outlook/Email | English | Thin |  |  |

\*Add more rows to the table to include the complete list of applications.

## II.3 As-Is Process map

### High Level As-Is Process Map:

This chapter depicts the As-Is business process at a High Level to enable developers to have a high-level understanding of the current process.

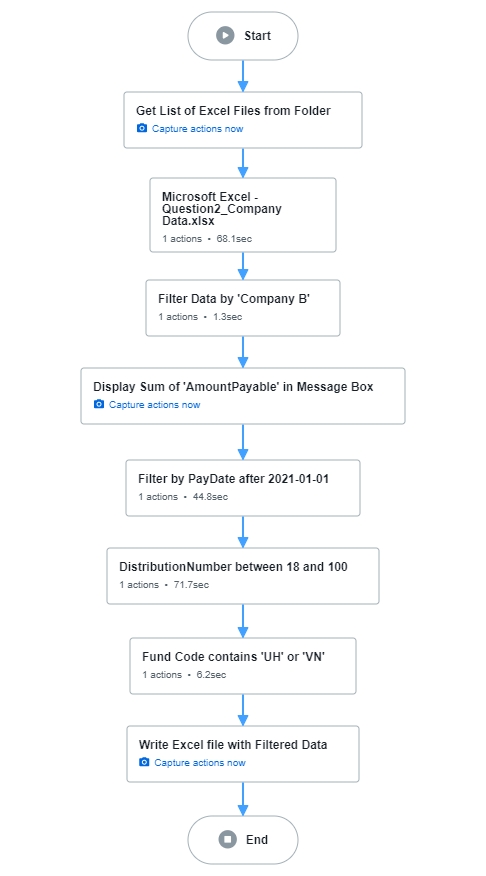


Fig.: As-Is Process

## II.4 Process statistics

### High level statistics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Processes | **Windows** | Actions | Mouse clicks | Keys pressed | Text entries | Hotkeys used | Time |
| 1 | 3 | 5 | 5 | 0 | 0 | 0 | 3 min. 11 sec. |

### Detailed statistics

|  |  |  |  |
| --- | --- | --- | --- |
| Window name | Mouse Clicks | Text entries | Keys pressed |
| Read “Microsoft Excel - Company Data.xlsx” | 3 | 0 | 0 |
| Display “Amount Payable for Company B” | 1 | 0 | 0 |
| Custom AutoFilter | 1 | 0 | 0 |

## II.5 Detailed As-Is Process Actions

#### Get List of Excel Files from Folder

|  |  |
| --- | --- |
|  | **Est. time:0.0 sec.** |

#### Microsoft Excel - Question2\_Company Data.xlsx

|  |  |
| --- | --- |
|  | **Est. time:1 min. 8 sec.** |

##### Read File

|  |  |
| --- | --- |
| Read sheet 'Company Data' from excel file | **Est. time: 1 min. 8 sec.** |
| image | Action: Click |

#### Filter Data by 'Company B'

|  |  |
| --- | --- |
|  | **Est. time:1.3 sec.** |

##### Filter 'Company' column

|  |  |
| --- | --- |
| Filter 'Company' Column by Company B | **Est. time: 1.3 sec.** |
| image | Action: Click |

#### Display Sum of 'AmountPayable' in Message Box

|  |  |
| --- | --- |
|  | **Est. time:0.0 sec.** |

#### Filter by PayDate after 2021-01-01

|  |  |
| --- | --- |
|  | **Est. time:44.8 sec.** |

##### PayDate should be After 2021-01-01

|  |  |
| --- | --- |
|  | **Est. time: 44.8 sec.** |
| image | Action: Click |

#### DistributionNumber between 18 and 100

|  |  |
| --- | --- |
|  | **Est. time:1 min. 11 sec.** |

##### Filter by Distribution Number between 18 and 100

|  |  |
| --- | --- |
|  | **Est. time: 1 min. 11 sec.** |
| image | Action: Click |

#### Fund Code contains 'UH' or 'VN'

|  |  |
| --- | --- |
|  | **Est. time:6.2 sec.** |

##### Filter by FundCode

|  |  |
| --- | --- |
| FundCode contains "UH" or "VN" | **Est. time: 6.2 sec.** |
| image | Action: Click |

#### Write Excel file with Filtered Data

|  |  |
| --- | --- |
|  | **Est. time:0.0 sec.** |

# To-Be Process Description

This chapter highlights the expected design of the business process after automation.

Start

Get the List of Excel files available in Source Directory

For Each file in List

Calculate the Sum of “AmountPayable” for ‘Company B’ value

Filter data based on following Criterias:

1. PayDate after 2021-01-01
2. DistributionNumber between 18 and 100
3. Fund Code contains 'UH' or 'VN'

Write the filtered rows to an excel sheet named:

Qn2\_Final\_Data\_<todaydate>.xlsx

End

## III.1 To-Be Detailed Process Map

Highlight Bot interventions/ To-Be automated actions with different legend/ icon (purple)

\*Mention below if process improvements were performed on the To-Be design and provide details.

|  |  |
| --- | --- |
| Legend | Description |
|  | Action number in the process. Referred to in details or Exceptions and Errors table |
|  | This process action is proposed for automation |
|  | This process action remains manual (to be performed by a human agent) |

## III.2 Parallel Initiatives/ Overlap (if applicable)

This chapter covers the proposed Business, Process & System changes to be made in the near future and their impact.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Initiative Name | Process Acion(s) where it is identified | Impact on current automation request? How? | Expected Completion Date | Contact person for more details |
|  | N/A |  |  |  |  |

## III.3 In Scope of RPA

The activities **In scope of RPA**, are listed here:

1. Calculating the Sum for Company B.
2. Generating the data as per business rules specified.

## III.4 Out of Scope of RPA

The activities **Out of scope of RPA**, are listed here:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sub-process(if applicable) | Activity (action) | Reasons for Out of scope\* | Impact on the To-Be | Possible measures to be taken into consideration for future automation |
| 1.1 | 1.1.1 | Maintenance of the Input files | If Input files are not available in the Source Directory, process will be executed without any report. |  |
| 1.2 | 1.2.1 | Validation of Input data |  |  |

\*Add more rows to the table to reflect the complete documentation provided to support the RPA process.

## III.5 Business Exceptions Handling

The Business Process Owner and Business Analysts are expected to document below all the business exceptions identified in the automation process. These can be classified as:

|  |  |
| --- | --- |
| Known | Unknown |
| Previously encountered. A scenario is defined with clear actions and workarounds for each case. | New situation never encountered before. It can be caused by external factors. Cannot be predicted with precision, however if it occurs, it must be communicated to an authorized person for evaluation. |

### Known Exceptions

The table below reflects all the business process exceptions encountered during the process evaluation and documentation. These are **known exceptions**that occurred before. For each of these exceptions, define a corresponding expected action that the robot should complete if it encounters the exception.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BE # | Exception name | Action | Parameters | Action to be taken |
| 1 | BRE-001 |  |  |  |

### Unknown Exceptions

For all other unanticipated or unknown business (process) exceptions, the robot should:

Send an e-mail [exceptions@company.com](mailto:exceptions@company.com) with a screen shot and robot should then proceed to next transactions.

## III.6 Application Error and Exception Handling

A comprehensive list of all errors, warnings or notifications should be consolidated here with the description and action to be taken, for each, by the robot.

Errors identified in the automation process can be classified as:

|  |  |  |
| --- | --- | --- |
| Area | Known | Unknown |
| Technology/Applications | Experienced previously, an action plan or a workaround available. | Never encountered before, or may happen independently of the applications used in the process. |

### Known Errors or Exceptions

The table below reflects all the errors identified in the process evaluation and documentation.

For each of these errors or exceptions, define a corresponding expected action that the robot should complete if it is encountered.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Error name | Action | Parameters | Action to be taken |
| 1 | Application Crash / Internal Server Error | Any action | Error message | Recover & retry for maximum 3 times. Close the applications and run the sequence again |

### Unknown Errors and Exceptions

For all the other unanticipated or unknown application exceptions/errors, the robot should:

Send an e-mail [exceptions@company.com](mailto:exceptions@company.com) with a screen shot and robot should then proceed to next transactions.

## III.7 Reporting

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Report type | Update frequency | Details | Monitoring Tool to visualise the data |
| 1 | Process logs | Daily | How many times was this process run since the beginning of the month and what was the average run duration? | Kibana |
| 2 | Process logs | Monthly | How many robots worked on this process per each month? | Csv file posted daily on sharedrive |
| 3 | Transaction logs | Daily | How many transactions were run by this process since the beginning of the month and what was the average transaction duration? | Kibana |
| 4 | Error logs | Daily | Average number of errors by type per day | Kibana |
| 5 | Error logs | Daily | All errors per month grouped by type | Csv file posted daily on drive |
|  |  |  |  |  |

\* For complex reporting requirements, include them into a separate document and attach it to the present documentation

# Other Observations

Include below any other relevant observations you consider needed to be documented here.

Example: Specific Business monitoring requirements (audit and reporting) etc.

# Additional sources of process documentation

If there is additional material created to support the process automation please mention it here, along with the supported documentation provided.

|  |  |  |
| --- | --- | --- |
| Additional Process Documentation | | |
| Video Recording of the process (Optional) |  |  |
| Standard Operating Procedure (s) (Optional) |  |  |
| Business Rules Library (Optional) | Business Rules are specified in Section “Business Rules”. |  |
| Other documentation (Optional) |  |  |

\*Add more rows to the table to reflect the complete documentation provided to support the RPA process.

# Business Rules

Step 1: Calculate the Sum of AmountPayable just for 'Company B' and display it in a Message Box.

Step 2: Process only those rows in the sheet which satisfy the following criteria.

* PayDate after 2021-01-01
* DistributionNumber between 18 and 100
* Fund Code contains 'UH' or 'VN'

Step 3: Write the filtered rows to an excel sheet named,

Qn2\_Final\_Data\_<todaydate>.xlsx

where <todaydate> is current date in day-month-year format (example: Final\_Data\_06Feb2021.xlsx)